

NORTH AMERICAN BEES OF THE GENUS *ANCYLOSCELIS*
(Hymenoptera, Anthophoridae)

BY CHARLES D. MICHENER

*American Museum of Natural History, New York**

Ancyloscelis is a genus of bees widely distributed in the Neotropical Region and ranging northward as far as southern Colorado. In the present paper only those species known to occur in Mexico and the United States are considered.

Since the generic name *Ancyloscelis* has been subject to confusion for many years, its history is here briefly reviewed. The French vernacularized name *Ancyloscèle* was listed without description by Latreille (1825:463) and this is given as the original citation for *Ancyloscelis* by both F. Smith (1854:367) and Dalla Torre (1896:222). The name *Ancyloscelis*, however, was apparently first used by Berthold (1827:466) in his German edition of Latreille's work of 1825. Being unaccompanied by a description or figure, the name was a *nomen nudum*. In 1829 Latreille [in Cuvier, (1829:355)] gave a brief description of *Ancyloscelis*, but mentioned no species. The name is treated in approximately the same manner in the numerous later editions of Cuvier's work. Not until 1836 was a species included in the genus. In that year Haliday, using the spelling *Ancylosceles*, described a species, *ursinus*. Cockerell has used this latter spelling and credited the generic name to Haliday. However, Haliday's *Ancylosceles* is evidently only a misprint or an incorrect use of the French pleural vernacular (*les Ancyloscèles*) which appears in the second and following editions of Cuvier's "Règne Animal." Since Haliday clearly intended to place his species in Latreille's genus, *A. ursinus* Haliday, as the first included species, necessarily becomes the type species of *Ancyloscelis* Latreille, even though Latreille's original specimens apparently belong to the genus now called *Tetrapedia* (see Cockerell, 1922).

Diadasia Patton was placed as a synonym of *Ancyloscelis* by Ashmead (1899:64). Friese (1906:92) following Ashmead in his interpretation of *Ancyloscelis*, proposed the name *Dipedia* for the species of *Ancyloscelis* as now understood. Cockerell, on the other hand, placed these forms in *Leptergatis* Holmberg. Upon studying specimens identified as *L. halictoides* Holmberg, the type species of *Leptergatis*, he concluded that that genus was

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related to *Melitoma* and distinct from *Ancyloscelis*. His examination of the type specimen of *Ancyloscelis ursinus* Haliday showed it to belong to the genus *Ancyloscelis* as understood by recent authors and not, as Ashmead had supposed, to the group now called *Diadasia*. *Dipedia* Friese therefore becomes a synonym of *Ancyloscelis*.

Genus ANCYLOSCELIS Latreille

Ancyloscelis Latreille, 1829, in Cuvier, Règ. Anim., 2nd ed., 5:355; Haliday, 1836, Trans. Linn. Soc. London, 17:320 (as *Ancylosceles*); Smith, 1854, Cat. Hymen. Ins. Coll. Brit. Mus., 2:367; Holmberg, 1903, Anal. Mus. Nac. Buenos Aires, (3)2:430; Friese, 1904, Zeit. f. syst. Hymen. u. Dipt., 4:20; Brèthes, 1909, Anal. Mus. Nac. Buenos Aires, (3)12:221; Lutz, 1920, Bull. Am. Mus. Nat. Hist., 42:641; Cockerell, 1921, Ent. News, 32:76 (as *Ancylosceles*). Genotype: *Ancylosceles ursinus* Haliday, by single reference (Haliday, 1836).

Dipedia Friese, 1906, Flora og Fauna, 8:92; Lutz and Cockerell, 1920, Bull. Am. Mus. Nat. Hist., 42:592. Genotype: *Ancyloscelis armata* Smith, designated by Lutz and Cockerell, 1920.

Leptergatis Cockerell (nec Holmberg), 1912, Ann. Mag. Nat. Hist., (8)10:29; Lutz and Cockerell, 1920, Bull. Am. Mus. Nat. Hist., 42:592.

KEY TO THE NORTH AMERICAN SPECIES OF ANCYLOSCELIS

Males

1. Small tooth of inner ventral angle of posterior tibiae far beyond middle; tooth of base of posterior basitarsi small. *toluca*
- Small tooth of inner ventral angle of posterior tibiae but little beyond middle; tooth of base of posterior basitarsi large.....2
2. Clypeus with an apical transverse white band; labrum largely white; apical emargination of sixth sternum deep with sides at acute angle to one another.....*armatus*
- Clypeus black; labrum with at least large black areas; apical emargination of sixth sternum broader and shallower.....3
3. Apical emargination of sixth sternum with sides at a slightly obtuse angle to one another.....*sejunctus*
- Apical emargination of sixth sternum with sides at a slightly acute angle to one another.....*melanostomus*

ANCYLOSCELIS TOLUCA (Cresson)

Melissodes toluca Cresson, 1878, Proc. Acad. Nat. Sci. Phila., p. 219.

Diadasia toluca, Fox, 1894, Proc. Calif. Acad. Sci., (2)4:118.

Eucera toluca, Dalla Torre, 1896, Cat. Hymen., 10:249.

Entechnia toluca, Cockerell, 1905, Am. Nat., 39:741.

Leptergatis toluca, Cockerell, 1912, Ann. Mag. Nat. Hist., (8)10:29.

Ancylosceles toluca, Cockerell, 1923, Proc. Calif. Acad. Sci., (4)12:

This species is unknown to me. *A. wheeleri* (Cockerell) (1912, *Psyche*, 19:105) described from Guatemala is apparently closely related to *toluca*, if not synonymous with it. *A. toluca* itself has been recorded from Guatemala.

Type: from MEXICO, in the Academy of Natural Sciences of Philadelphia. It is possible that the Fox Lower Californian record of *toluca* refers in reality to *melanostomus*.

ANCYLOSCELIS ARMATUS Smith

Ancyloscelis armata Smith, 1854, *Cat. Hymen. Ins. Coll. Brit. Mus.*, 2:367; Friese, 1904, *Zeit. f. syst. Hymen. u. Dipt.*, 4:22.

Ancyloscelis armatus, Cockerell, 1905, *Trans. Am. Ent. Soc.*, 31:325.

Eucera armata, Dalla Torre, 1896, *Cat. Hymen.*, 10:225.

Dipedia armata, Friese, 1906, *Flora og Fauna*, 8:92.

Leptergatis armata, Cockerell, 1912, *Ann. Mag. Nat. Hist.*, (8)10:29.

Male: Length, 7 to 7½ mm. Inner margins of eyes converging below; flagellum dark brown beneath; clypeus rather coarsely punctured with a narrow, transverse, yellowish white, subapical band; labrum yellowish white, the margin narrowly fuscous; mandibles with large basal areas white, median parts reddish, apices black; frons and vertex considerably more finely punctate than clypeus. Mesoscutum and mesoscutellum more coarsely and closely punctate than clypeus; mesepisterna similarly but a little less closely punctate, especially below; tegulae translucent brown; wings clear; tarsi ferruginous; posterior legs greatly thickened; inner ventral angle of posterior tibiae with a small tooth a little distad to middle of tibiae; posterior tibial spurs slightly bent, outer markedly shorter than inner; posterior basitarsi produced ventrally at apex to an acute point, ventrally at base to form a large, curved, acute tooth; claws and terminal segments of posterior tarsi far larger than those of other tarsi; posterior surface of propodeum, including enclosure, rather dull and minutely roughened. Abdomen finely punctate; posterior margins of terga one to five with fasciae of white pubescence, broken medially on first tergum; fascia of sixth tergum reddish brown; pubescence between abdominal fasciae short, sparse, fuscous; emargination of sixth sternum deep and acute.

This species was described from BRAZIL but has been recorded from ARGENTINA (Friese, 1906) and from as far north as GUATEMALA (Cockerell, 1912) and MEXICO (Friese, 1904). Two male specimens from UVALDE, TEXAS, June 15, 1930 (E. G. Linsley and J. O. Martin, *Calif. Acad. Sci.*) agree well with descriptions of *armatus* and are placed in that species for the present, although the examination of South American material may event-

ually show them to represent distinct species. The preceding description is based upon the Texan specimens.

Type: male, from Brazil, in the British Museum (Natural History).

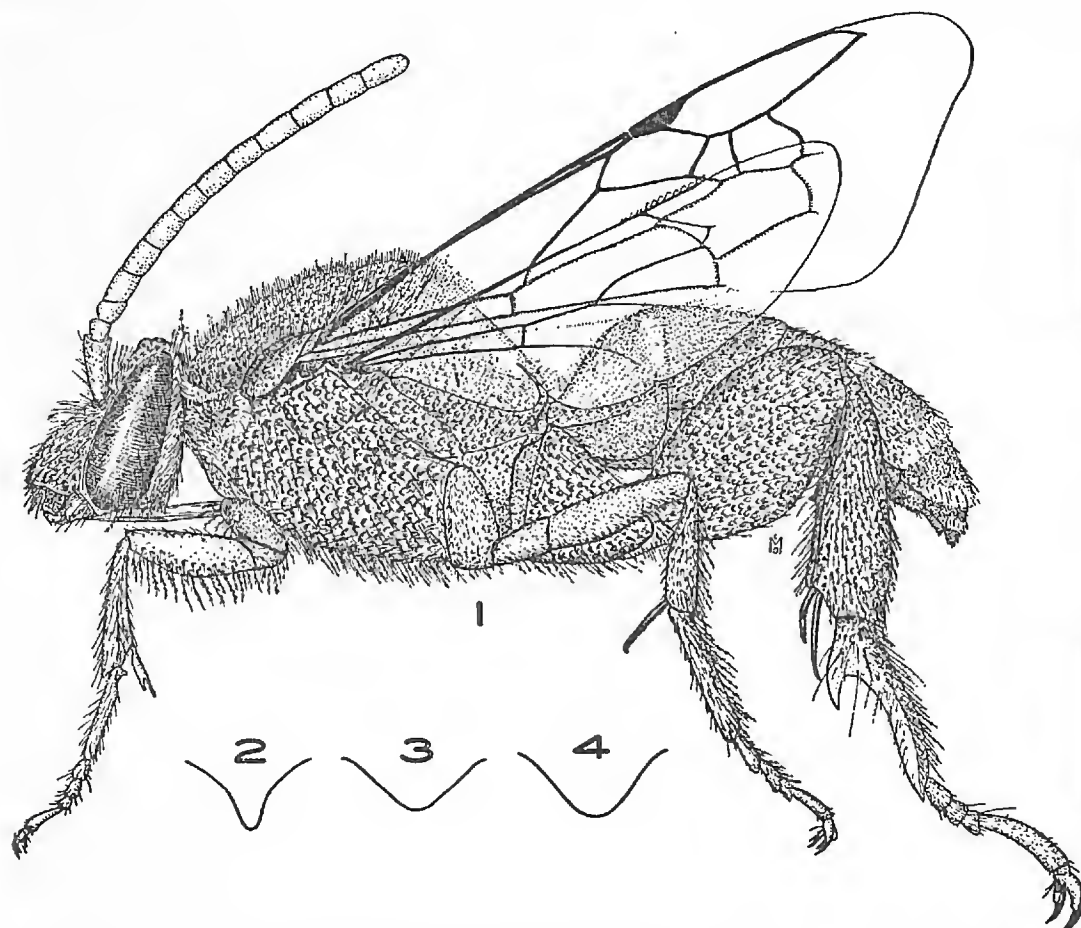


Fig. 1, Lateral view of *Ancyloscelis sejunctus* Cockerell, male; Fig. 2, Emargination of sixth abdominal sternum of *A. armatus* Smith, male; Fig. 3, Emargination of sixth abdominal sternum of *A. sejunctus* Cockerell, male; Fig. 4, Emargination of sixth abdominal sternum of *A. melanostomus* Cockerell, male.

ANCYLOSCELIS SEJUNCTUS Cockerell

Ancylosceles sejuncta Cockerell, 1933, Am. Mus. Nov., 595:1.

Ancylosceles maculifera Cockerell, 1934, Am. Mus. Nov., 697:8 (new synonym); Cockerell, 1935, Am. Mus. Nov., 766:4.

This species, in the male, differs from *armatus* thus: clypeus black; labrum black or with small whitish area medially; white hair bands of abdominal terga broader, more broadly broken on anterior two terga, that of sixth tergum white like preceding ones; apical emargination of sixth sternum broad and slightly obtuse.

A. sejunctus was described from BACA COUNTY, COLORADO, and has been twice recorded (as *maculifera*) from BEXAR COUNTY, TEXAS. Specimens before me are from SABINO CANYON, ARIZONA, August 14, 1924 (E. P. Van Duzee).

Type: male, REGNIER, BACA COUNTY, COLORADO, in the American Museum of Natural History.

I am much indebted to Mr. H. F. Schwarz for the information upon which the above indicated synonymy is based. At my request, he has examined the types of both *sejunctus* and *maculifera*, comparing them with an Arizona specimen. He found the types of *sejunctus* and *maculifera* to be very similar, differing chiefly in the presence of a dull whitish spot on the labrum of the latter. This spot is absent in the San Antonio, Texas, specimens recorded as *maculifera* by Cockerell in 1935. Certain differences which appear from the descriptions to separate the two forms are of no value. Thus the pterostigmata are of the same color in the two types, and the mandibles of both have whitish areas basally, barely less conspicuous in *sejunctus* than in *maculifera*, although such areas are described as absent in *sejunctus*.

ANCYLOSCELIS MELANOSTOMUS Cockerell

Ancylosceles melanostoma Cockerell, 1923, Proc. Calif. Acad. Sci., (4)12:83.

This is probably a form of *sejunctus*, from which it seems to differ only in the larger and deeper emargination of the sixth sternum of the male. In view of the extremely limited amount of material available, the absence of specimens intergrading between *sejunctus* and *melanostomus*, and the apparent geographic separation of the two forms, it has seemed best to regard them as separate species for the present. The mandibles in the holotype of *melanostomus* have a dull whitish area basally on each, just as in *sejunctus*, although they were described as black.

Type: male, LA PAZ, LOWER CALIFORNIA, in the California Academy of Sciences.

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A NEW SPECIES OF ACMAEODERA FROM SOUTHERN CALIFORNIA

(Coleoptera, Buprestidae)

BY WILLIAM F. BARR

University of California, Berkeley

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Acmaeodera ephedrae Barr, new species

Medium-sized, robust. Head and pronotum unicolorous, aeneous black, shining. Elytra straw colored, suture, umbones and outer margins cupreous brown. Under surface uniformly, closely punctate throughout and densely clothed with what appears to be a dense felt-like tomentum; prosternal margin slightly retracted from anterior pronotal angles; last abdominal segment evenly rounded without a subapical carina.

Head rather deeply, coarsely punctate, reticulate, matted with short, silvery white, recumbent hairs, thinning out on vertex, two denuded areas just above antennal insertions; clypeus rather deeply emarginate, finely punctate, sparsely covered with short, suberect, whitish hairs; antennae abruptly serrate beginning with fifth segment, extending to hind margin of pronotum.

Pronotum widest at basal fourth, slightly wider than elytra, slight trace of median depression, convex, shallowly, coarsely, punctate, reticulate, densely covered with short, silvery-white, recumbent hairs except on disk which is sparsely covered with long, white, subrecumbent hairs; anterior margin sinuate, as wide as base; basal margin slightly emarginate; side margins obsolete, not visible from above.